



west virginia department of environmental protection

Division of Water and Waste Management
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Harold D. Ward, Cabinet Secretary
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May 05, 2023

Mr. Gregory Voigt, Chief Standards and TMDL Sections
U.S. Environmental Protection Agency – Region III
Four Penn Center
1600 John F. Kennedy Blvd.
Philadelphia, Pennsylvania 19103-2852

Dear Mr. Voigt:

Pursuant to requirements contained in the federal Clean Water Act, 40CFR130 and in current federal guidelines, I am hereby transmitting the final West Virginia Combined 2018/2020/2022 Integrated Water Quality Monitoring and Assessment Report (IR). In addition to the report, WVDEP has uploaded decisions to the USEPA ATTAINS and submitted them for review and approval.

The draft IR, including the draft 303(d) List, was advertised for public comment from April 14, 2022, to June 1, 2022. The availability of the draft document and list were promoted via news release, e-mail notifications, and the internet. At the conclusion of the public comment period, the DEP considered all comments and revised the list and IR as appropriate. The final IR contains a Responsiveness Summary addressing public comments received.

Thank you for your thorough review of the draft IR and draft 303(d) List, as well as the opportunity to combine the efforts to prepare three cycles of data into one draft IR. The comments your office provided on June 1, 2022, were considered, and are addressed below.

Data Management:

WVDEP staff remain committed to supporting the EPA's efforts to maintain ATTAINS and the public-facing How's My Waterway webpage. WVDEP staff strives to provide the public with helpful information to aid in their understanding of water quality, including hosting innovative interactive tools. While the assessment unit re-delineation effort resulted in delays of the 2018 and 2020 IRs, in the long run, we anticipate changes in data management will allow our program to accomplish assessments and reporting more efficiently.

Third Party Monitoring and Data:

As stated in the Integrated Report, pH data collected via litmus paper was disqualified from assessment.

WVDEP's Water Assessment Branch (WAB) also reconsidered use of instream water chemistry data self-reported through discharge monitoring reports (instream DMR data). In previous cycles, the WVDEP WAB has used instream DMR data from NPDES permittees to make listing decisions. When considering the purpose of the instream DMR data, (i.e., that is the data are collected by permittees near their discharges to verify attainment of water quality standards), it was determined that episodic excursions of water quality standards observed in the instream monitoring data are subsequently corrected through the permits. Listing with instream DMR data introduces listing/TMDL liabilities where NPDES Permits function as the control to ensure attainment of water quality standards. To avoid creating unnecessary listing/TMDL liabilities, no new streams were listed based on instream DMR data. In those instances where instream DMR data were used to make a listing decision in the past, more recent instream DMR data were considered and used to delist streams when appropriate. This assessment strategy provided an opportunity to consider data collected after corrective actions were taken through the permit controls. There are two exceptions to this general determination, 1) selenium water column data collected from June 2016-June 2018 and 2) selenium fish tissue data.

1. Selenium Water Column:

One exception for using instream DMR data to delist was regarding selenium water column data reported from June 2016-June 2018. Exclusion of this data followed a determination that erroneous data were inadvertently reported when a laboratory method for selenium water column was used inaccurately. Analytical errors were identified by the WVDEP Division of Mining and Reclamation, and measures were taken by the Division of Water and Waste Management Laboratory Certification section to train laboratory personnel on the appropriate analytical methods.

2. Selenium Fish Tissue:

WVDEP recognizes the value of fish tissue data as a measure to long-term conditions of a stream and considers fish tissue a superior measure of selenium water quality criteria attainment. WVDEP's Division of Mining and Reclamation staff biologists review and approve sampling plans from permittees specifically from monitoring stations considered to be representative of the stream condition. Initially WVDEP's WAB, in consultation with the Division of Mining and Reclamation staff, decided to postpone assessment of selenium fish tissue, because the appropriate data were not readily available. Fish tissue data are reported in two ways from NPDES permittees, 1) maximum concentration through DMRs (lacking species information) and 2) detailed sampling data through the required WV Selenium Chronic Aquatic Life Standard Implementation Reports (implementation reports). The data in the implementation reports include details of sample dates, details on fish species, accompanying selenium water column data, and all composites for each reporting period. These data are those needed to properly assess the data. WVDEP's Division of Mining and Reclamation set a goal to enter the data provided in PDF implementation reports into a database enabling analysis and assessment. This goal had not been accomplished during the development of the draft IR.

In order to address the EPA's comments regarding selenium fish tissue assessments, the WAB reconsidered the feasibility of extracting the data from PDF implementation reports. Using the

data cutoff of December 2020 and with the compliance criteria set forth in the WV Selenium Aquatic Life Standard Implementation guidance document, there was a limited number of fish tissue data to compile in the 2018/2020/2022 Combined IR effort. The assessment methodology is based on the WV Selenium Aquatic Life Standard Implementation guidance through NPDES permits. Only permits with >2 compliance sampling periods were considered for assessments to ensure that the results were representative of the instream condition. A decision to list an assessment unit on the Section 303(d) List was determined when >2 composites exceeded the 8 mg/kg fish tissue criterion. Attainment decisions were made only when there were at least 4 semi-annual implementation reports, in which no composites exceeded the 8 mg/kg tissue criterion. Using these assessment rules, WVDEP revised the 303(d) List and ATTAINS. In scenarios where fish tissue confirmed previously listed streams based on the water column chemistry, a note was added to ATTAINS to document the verification. In scenarios where fish tissue indicated impairment and no impairment had been documented previously, assessment units were added to the 303(d) List as impaired for selenium. There were assessment units, in which fish tissue indicated attainment. No assessment units were delisted based on available fish tissue data. Decisions are summarized in Attachment 1.

Nutrient Stressor Identification:

WVDEP will consider the recommendation from EPA to distinguish nutrient stressors.

Narrative Water Quality Criteria for Support of Aquatic Life – Biological Impaired Data:

WVDEP has reviewed the comments regarding the use of the Genus Level Index of Most Probable Stream Status (GLIMPSS) and appreciates the thorough scientific and statistical explanation regarding the validity of the GLIMPSS. Even so, it is the position of the WVDEP that the existence of a genus level IBI does not discount the validity of the WVSCI. The agency has consistently relied on the WVSCI to assess the narrative water quality criteria since 2002. The decision to remain consistent with historical decisions, considers input from all stakeholders, including those who oppose solely using benthic macroinvertebrate indices of biotic integrity (e.g., WVSCI, GLIMPSS) to measure the narrative water quality standard for aquatic life. When WVDEP was charged by legislative action to develop a new rule to interpret biological data, WVDEP was able to achieve an assessment procedure that allows the agency to focus resources on streams where impairment of the narrative water quality criterion for biological condition is clearly demonstrated.

WVDEP contends that the preparation of an assessment procedure, including thresholds prompting the use of additional lines of evidence when making a listing decision, is within the latitude afforded to the Agency's assessment program. Establishing an assessment procedure for the aquatic life narrative water quality criterion is not unlike other assessment procedures applied to numeric water quality criteria, described in Section 5.0 of the Integrated Report. These assessment procedures are maintained as internal processes in order to provide flexibility for best professional judgment when considering the quality, number, and frequency of data needed to accurately represent the stream's water quality. With that same concept in mind, the aquatic life assessment procedure affords WVDEP the latitude and flexibility to verify how well a biological sample represents a given assessment unit.

While the thresholds of 50 and 61 were arbitrarily derived as parameters in the assessment procedure decision flowchart, no delisting decisions are based on the assessment procedure thresholds of 50 and 61. Any assessment unit that is already categorized as impaired (IR Categories 5 and 4 for biological impairment) remains in those categories until a WVSCI is 72 or greater is attained. The assessment procedure simply considers more data when the WVSCI score is between 50 and 72, including stressor identification, additional benthic macroinvertebrate samples, and/or genus-level

benthic data for verification. The assessment procedure establishes the use of genus-level data as an arbiter, when two WVSCI scores for an assessment unit are between 61 and 72 to allow a final listing determination to be made. WVDEP is committed to collecting and considering additional data as soon as possible to finalize listing decisions to avoid delays in restoration planning.

Should you have any questions, please do not hesitate to contact me at (304) 926-0499 extension 43830 or at Katheryn.D.Emery@wv.gov .

Sincerely,

Katheryn D. Emery, P.E.
Director

cc: Mindy Neil, Watershed Assessment Branch